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ABSTRACT

The study compared attitudes of nine 6th grade students (eight female and one male) who volunteered to participate in a peer tutoring swimming program for moderately and severely handicapped children with the attitudes of the remainder of the sixth grade class (N=15) who had not volunteered. All students had previously completed a curriculum designed to develop accepting attitudes toward the handicapped. Both volunteers and non-volunteers had similar perceptions of the handicapped but volunteers had much more positive feelings toward the handicapped. Although, in general, neither perceptions nor feelings of the volunteers or non-volunteers changed after 7 weeks of the peer teaching program, the one male who also had the most negative feelings among the volunteers at pre-test reported very positive feelings at post-test. References, tables, study correspondence and student attitude questionnaires are appended. (DB)

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Differences in Attitudes Toward the Handicapped Between Caring-Sharing Peer Tutors and Their Sixth Grade Classmates

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A Thesis Submitted to the Graduate School
In Partial Fulfillment of the Requirements
For the Degree
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Abstract

The Caring-Sharing program allows sixth grade students to serve as peer tutors in a swim instruction program for mildly to severely handicapped students. The attitudes toward the handicapped of those who volunteered for the program were compared to the attitudes of sixth graders who did not volunteer. No difference was found in their perceptions about the handicapped but the difference in their feelings toward handicapped individuals was significant. Tests were readministered to the tutors after seven weeks of participation in the program. No differences were found in either their perceptions or feelings. The effects of a Birth Defects curriculum on attitudes were also considered.

Acknowledgements

Special educators need to be concerned not only with educating the handicapped but also with educating the public about the handicapped. The attitude of the public toward those with handicaps is an important factor to consider when planning for the future of those with handicapping conditions. The Caring-Sharing program has afforded me the opportunity both to teach swimming to handicapped students and to teach nonhandicapped students about those who are handicapped through their involvement as peer tutors. I would like to thank the Northshore School District and especially those at C.O. Sorenson school for supporting the Caring-Sharing program and allowing students to receive education in an intergrated setting. Dr. Annette Clem and Dr. Chester Hauskens of Seattle Pacific University have earned my thanks for being most supportive as I completed this research. Finally my family deserves special thanks for allowing me the time and space to pursue my dream.

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I

Introduction

The instances where moderately and severely handicapped students receive their education in settings with their nonhandicapped peers is increasing as school districts strive to implement the least restrictive environment requirements of the Education for All Handicapped Children Act of 1975, Public Law 94-142. The language of this law states that, "... every public agency shall insure that, to the maximum extent appropriate, handicapped children, including children in public or private institutions or other care facilities, are educated with children who are not handicapped, and that special classes, separate schooling or other removal of handicapped children from the regular educational environment occur only when the nature or severity of the handicap is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily." (Pegnatore, 1984). The law requires each public agency to develop a continuum of alternate placements to meet the needs of handicapped students. In some instances handicapped students are being housed in self-contained classrooms within regular public school buildings, in other instances

these students receive services in building that are adjacent to the regular public school. Even in these settings there is often only minimal contact between the handicapped students and their nonhandicapped peers. Most often these contacts occur in the hallways and lunchrooms and during recess (Stainback & Stainback, 1982b). The mere physical presence of handicapped and nonhandicapped students in the same setting does not guarantee that social integration will occur (Brady, McEvoy, Gunter, Shores, & Fox, 1984).

Some schools are developing programs which have been designed to encourage interaction between their handicapped and nonhandicapped students. One such program exists in the Northshore School District. Classes for moderately and severely handicapped students in the district are housed in C. O. Sorenson school. This school serves students who are between the ages of three and twenty-one. An adjacent building, the Woodinville Annex, is used to house other programs in the district. In the past, an overcrowding situation in some of the district's elementary schools mandated that the Annex serve ten classrooms of sixth graders. More recently, the building is being used by the district's elementary alternative and gifted programs. These programs include seven classrooms serving students from kindergarten through sixth grade. Interaction between the students in these two schools is fostered in several

different ways. One particular way that has been developed is the Caring-Sharing program. This program was developed jointly by teachers in the two buildings and allows nonhandicapped students to serve as peer tutors. As Caring-Sharing helpers, students in grades three through six volunteer to help students in the Sorenson program. They help in the classroom, in the physical education program, and in the swimming pool. As Caring-Sharing helpers in the swimming pool, peer tutors spend thirty minutes to one hour per week helping one or more handicapped students participate in a swim lesson. The purpose of this study is to determine if participation in the Caring-Sharing program, specifically as swim helpers, has an effect on the attitudes of the nonhandicapped students toward students with a wide range of handicapping conditions. Another purpose of this study is to determine if there is a difference in attitude between the students who volunteer for the Caring-Sharing program and those who do not.

Context of the Problem

Studies that have examined the attitudes of nonhandicapped students toward their handicapped peers have shown that these students rate the handicapped more negatively than they rate their nonhandicapped peers (Fenrick & Petersen, 1984, Stainback & Stainback, 1984,

Wisely & Morgan, 1981, Zakay, 1985). As integration becomes a more prevalent way of meeting the educational needs of handicapped students, it is important to assess the attitudes of nonhandicapped students toward the handicap and to explore ways to bring about positive changes in these attitudes. Contradictory studies about the effect of integration on attitudes have been published. Gresham (1982) states that it is wrong to assume that the placement of handicapped students in setting with nonhandicapped students will result in increased social acceptance of the handicapped. On the other hand, according to Voeltz (1982), integration is associated with more positive attitudes in comparison to the attitudes expressed by students in schools where there is no integration. Other studies have shown that interaction or increased contact between the nonhandicapped and handicapped leads to increased knowledge of the handicapped and subsequently to more positive attitudes and behaviors (Siperstein & Chatillon, 1982, Stainback & Stainback, 1981).

Peer tutoring is one way to increase the contact between nonhandicapped students and their handicapped peers. Examining the effect of peer tutoring on the attitudes of the nonhandicapped tutors is necessary in order to establish the validity and worthiness of such programs. While positive attitude change is desirable, it is important to guard against the formation of overly sympathic responses

toward the handicapped. Such responses can cause nonhandicapped students to assist handicapped students in areas in which they do not need assistance or to make unnecessary exceptions regarding the behaviors of handicapped students (Salend & Knops, 1984).

Statement of the Problem

Several questions are being investigated in this study. The first question is: Does participation in the Caring-Sharing program as swim helpers significantly change the perceptions that nonhandicapped sixth graders have about their handicapped peers? The second question is: Does participation in the Caring-Sharing program as swim helpers significantly change the feeling that the nonhandicapped sixth graders have toward their handicapped peers? The third question is: Do sixth graders who volunteer as Caring-Sharing helpers have significantly more positive perceptions about the handicapped than do their peers who do not volunteer? The final question is: Do sixth graders who volunteer as Caring-Sharing helpers have significantly more positive feelings toward the handicapped than do their peers who do not volunteer?

Hypotheses

1. H_o : Sixth grade nonhandicapped students will demonstrate no significant differences in their perceptions about the handicapped after participating as peer tutors in the Caring-Sharing program.

2. H_o : Sixth grade nonhandicapped students will demonstrate no significant differences in feelings toward the handicapped after participating as peer tutors in the Caring-Sharing program.

3. H_o : Sixth grade nonhandicapped students who volunteer as Caring-Sharing helpers will demonstrate no significant differences in perception about the handicapped than will their peers who do not volunteer.

4. H_o : Sixth grade nonhandicapped students who volunteer as Caring-Sharing helpers will demonstrate no significant differences in feeling about the handicapped than will their peers who do not volunteer.

Background of the Study

The population of C. O. Sorenson school includes students who have a wide range of handicapping conditions. These conditions include mild to severe mental retardation, visual impairments, hearing impairments, mild to severe physical or orthopedic disabilities, various health impairments and multiple handicaps. Students in the program range in age from three to twenty one years of age. These students are placed in classrooms that are established on the basis of the age of the students and the degree of disability.

Each classroom serves between six and ten students. The classroom teacher is assisted by at least one aide and some students also receive services from physical therapists, occupational therapists, communication disorder specialists, psychologists, and/or school nurses. Besides the instruction that is received in the classroom, each class receives instruction in music, physical education, and swimming. These classes are taught by specialists in each area.

Students from the Woodinville Annex have been used as peer tutors in the Caring-Sharing program for a number of years. These students help in the classrooms, in the gym, and in the swimming pool. As the population of the Annex

has changed, the age level of the Caring-Sharing helpers has also changed. Until recently, the helpers have all been sixth graders. Now the helpers are selected from volunteers in grades three through six. In the swimming program, Caring-Sharing helpers are asked to take responsibility for a handicapped student during a swim lesson. These helpers are shown how a skill can be taught and then are shown how to work on that skill with a handicapped student. During a class period the tutor may work on a variety of skills with a handicapped student. The handicapped students and their nonhandicapped tutors also participate in a five minute unstructured playtime at the end of each thirty minute session. Because of the range and types of disabilities effecting the students in each classroom, the Caring-Sharing helpers can gain an awareness of several different types of handicaps at the same time. The swim program is designed in such a way that the older Caring-Sharing helpers remain in the pool for two class sessions and so are responsible for two different handicapped students.

II

Review of the Literature

Henderson and Bryan (1984, p.38) in a discussion of the psychosocial aspects of disabilities state that negative attitudes are not inherent but that people learn to dislike other people. These negative attitudes are learned, mainly from other people who are held in high esteem by an individual and once these attitudes are learned they can be easily reinforced (p.42). Negative attitudes directed toward groups of people, such as the handicapped, tend to take the form of assumptions and/or generalizations about all or most of the members of a particular group (p.48). Such attitudes are prejudical in nature because they are developed without adequate knowledge or evidence to support the attitude in individual cases (p.34).

Negative attitudes toward the handicapped are often based on a series of erroneous ideas about people with disabilities. Often people with disabilities are seen as inferior. This attitude develops because disabilities and handicaps are seen as abnormalities and some people feel that any deviation from normalacy makes a person inferior (Henderson & Bryan, 1984, p.80). In many instances people with disabilities are seen as totally impaired. Often children or adults who have cerebral palsy are treated by

others as if they are also mentally impaired which may or may not be true (p.81). Many people also feel that disabled individuals prefer the company of others with similar disabilities. This belief serves to further the segregation of the handicapped (p.85).

Some of these assumptions about the handicapped were found in a 1975 study by Gottlieb and Corman. Their study explored the attitudes of 430 adults toward mentally retarded children. While 88% of the respondents in the study rated the retarded children as possessing positive attributes, only 33% favored some degree of integration into regular classrooms. One segment of their study looked at how the respondents perceived the mentally retarded child in light of physical and intellectual handicaps. They felt that the responses on this section of their test were based in part on the view that retarded people are inferior and look different than normal people. The parents of school-aged children were more apt to favor segregation of mentally retarded children in the community and in schools. Their responses in this area were more negative than the responses of adults of about the same age who did not have children in school.

The concern that their child's education will in some way be hurt by the inclusion of handicapped children into the mainstream is one reason why the parents of nonhandicapped school-aged students have been opposed to

integration. Another factor is that many adults have a sense of fear, revulsion, or discomfort toward the handicapped (Cohen, 1978). In studying children's attitudes and knowledge about orthopedic and sensory disabilities, DeGrella and Green (1984) found that feeling of fear, aversion and/or discomfort toward the handicapped are often factors that influence the formation of attitudes toward the handicapped. They also found that certain traits or qualities are perceived as negative and that this also effects the attitudes of children toward the disabled.

Guskin and Jones (1982) reported on a 1969 study by Shear and Jensema that provided evidence that there is a hierarchy of handicapping conditions, that is, that people perceive different handicaps as more or less positive. This hierarchy was influenced by the severity of the handicapping condition and by the group that was doing the ordering. Generally though, they found that amputees, those who were wheelchair bound, and the blind were rated most positively. People who had harelips, who stuttered, who were deaf-mutes, or who had cerebral palsy were rated less favorably. The least favored group included those who were mentally ill and mentally retarded (p.190). Henderson and Bryan (1984) found that people with physical disabilities are more readily accepted than are those with mental disabilities (p.75). In a 1978 study by Parish, Ohlsen, and Parish, students with physical handicaps were rated higher than learning disabled

students who in turn were ranked higher than those with emotional disturbances. The scores of fifty-six junior high students on an adjective checklist showed that they rated the physically handicapped child significantly higher than they rated the child who was mentally retarded (Gottlieb and Gottlieb, 1977).

The awareness of different handicapping conditions changes with age. Four year old children perceive some of the limitations imposed by physical disabilities and express more negative attitudes toward those who were disabled than toward those who were not disabled (Baum and Wells, 1985, DeGrella and Green, 1984, Gottlieb and Switsky, 1982, Rapier, Adelson, Carey, & Croke, 1972). The seven year old child is generally aware of sensory disabilities as well as physical disabilities (Conant and Budoff, 1983,DeGrella and Green, 1984). Thirty-eight percent of seven year olds in the Degrella and Green study were also aware of mental retardation as a handicapping condition. By the age of eleven and one half, sixty-one percent of the students who responded to open-ended questions in this same study expressed an awareness of mental retardation, psychological disturbances, orthopedic disabilities, blindness, and deafness as handicaps. As awareness of handicapping conditions increases, the attitudes toward others with these conditions changes. Sixth graders express less negative attitudes toward the mentally retarded than do third graders

(Gottlieb and Switsky, 1982).

Several different types of test instruments have been used to investigate the attitudes of the nonhandicapped toward the handicapped. Sociometric tests measure the willingness of the respondent to engage in situations which require social proximity to a handicapped person. Campbell, Bauer, and Dobson (1985), Fenrick and Petersen (1984), Gottlieb and Gottlieb (1977), McHale and Simeonsson (1980), Sandberg (1982), Voeltz (1980), Wisely and Morgan (1981), and Zakay (1985) used sociometric scales in their studies of the attitudes of the nonhandicapped toward their handicapped peers. Adjective checklists have been employed to determine the characteristics that the nonhandicapped attribute to handicapped children. Some adjective checklists require the respondent to select an exact number of characteristics (Salend & Knops, 1984). Other studies have allowed the respondents to select the number of responses which they feel are appropriate (Gottlieb & Gottlieb, 1977, McHale & Simeonsson, 1980, Siperstein & Chatillon, 1982, Wisely & Morgan, 1981, Zakay, 1985). Some researchers have transformed the adjective checklist into a semantic differential scale. Using the Likert type scale allows the respondent to indicate to what degree the characteristic appears (Fenrick & Petersen, 1984, McHale & Simeonsson, 1980). A Likert scale has been used to measure the extent to which the respondents perceive disabled persons as

different (Donaldson & Martinson, 1977, McKerracher, 1982) , and also to determine the acceptance of a handicapped child in academic, social, and general situations (Wisely & Morgan, 1981). Open-ended questioning allows researchers to gather information in greater depth than can be gained by using a checklist or Likert scale (McHale & Simeonsson, 1980).

Two research teams have combined several of these methods in their studies. The Severely Handicapped Perception Inventory (SHPI) is a 106 question test designed by Stainback and Stainback (1982a). This instrument includes knowledge and experience questions, adjective checklists, a checklist of feelings, and interest questions. Wisely and Morgan (1981) designed a four-part test that included an adjective checklist, a social distance scale, and activity preference list, and a Likert-format scale to measure acceptance in social, academic, and general situations. Through the use of multifaceted tests, researchers can gather information that relates to cognitive understanding, perceptions, and behavioral intentions of the respondents. Wisely and Morgan found that the use of different tests in a single study pointed out a discreptancy between behavioral intention ratings and attitude ratings. Stainback and Stainback (1982a) did not find that discrepancy in their study.

Ascertaining the attitudes that nonhandicapped students

have toward their handicapped peers is one purpose of this type of testing. Another purpose is to enable researchers to determine changes in attitudes brought about by planned and unplanned intervention.

Unplanned interaction often brings about increased negative attitudes toward the handicapped. Undirected group discussion about moderately and severely handicapped peers had negative consequences on the attitudes of sixth graders in a 1977 study by Siperstein, Bak, and Gottlieb. The attitude of the group tended to be influenced by the attitude of its most negative member. Stereotypic negative attitudes toward the handicapped can also be reinforced by unplanned interaction. Students who have formed negative attitudes toward the handicapped tend to see only those things that support their prejudical ideas (Henderson and Bryan, 1984, p.46).

Activities that are planned to stimulate more positive feelings toward the handicapped have taken many forms. One approach is to provide the nonhandicapped students with factual information about different types of handicapping conditions. Information can be presented through films, books, videotapes, and/or live presentations (Baum and Wells, 1985, Dewar, 1982, Donaldson and Martinson, 1977, Hamre-Nietupski and Nietupski, 1981, McKerracher, 1982, and Popp, 1983). Another way to introduce information about handicapping conditions is to involve students in simulation

activities. Simulation activities allow students to experience to some degree the limitations imposed by various handicaps (Dewar, 1982, Hamre-Nietupski and Nietupski, 1981, Kilburn, 1984, and Popp, 1984). Questioning using hypothetical examples is another method that has been employed to help students explore some of the problems relating to some handicaps (Baum and Wells, 1985, and Salend and Knops, 1984). Thurston, Wideman, Wideman, and Willet (1985) developed a values approach to attitude development. The basis of their curriculum was that developing respect for oneself and respect for others would encourage the formation of a values system that would include an acceptance of handicapped individuals.

Some programs combine several of these techniques. The Birth Defects Education Curriculum entitled "People You'd Like to Meet" combines the presentation of factual information with simulation activities. This curriculum was developed in 1980 in a joint effort between the Bellevue School District and the Puget Sound Chapter of the March of Dimes. The two overall goals of this program are to help young people develop accepting attitudes toward the handicapped and to help people make responsible decisions concerning future pregnancy outcomes. To achieve these goals the program presents factual information about normal growth and development, about the factors which might cause birth defects, and about some of the effects of birth

defects. This information is presented through films, slide shows, books, and other audio-visual materials. Secondly the program involves the learners in simulation activities that are designed to demonstrate some of the ways that individuals can learn to cope positively with birth defects. Role playing is also a part of the similation activities in this program.

Another approach that has been used to promote greater acceptance and more positive attitudes toward the handicapped is planned interaction. Brady, McEvoy, Gunter, Shores, and Fox (1984) suggest three roles that can be assumed by nonhandicapped students in an integrated setting. One role is that of tutor or trainer. These peers are taught ways to teach specific skills to handicapped individuals. A second role is that of a helper. Helpers act as special friends to handicapped peers in settings that are less structured than that of a tutoring situation. A third role is that of observer. Students who assume this role choose to have little or no personal contact with their handicapped peers. Stainback, Stainback, Hatcher, Strathe, and Healy (1984) taught nonhandicapped fourth through sixth graders how to interact with rejected handicapped peers. Handicapped and nonhandicapped middle school students participated in a recreational bowling activity in a 1981 Stainback and Stainback study. They found that a cooperative atmosphere instead of a competitive or an

individualistic atmosphere promoted significantly more praise, encouragement, and support between the nonhandicapped and the handicapped students. Voeltz (1982) conducted a voluntary "special friends" program and found that while some nonhandicapped students helped in a classroom for severely handicapped students on almost every possible opportunity, other nonhandicapped students avoided interaction with the handicapped students. She found that a high degree of acceptance was associated with a high degree of interaction and that a low degree of acceptance corresponded to a low degree of interaction.

Peer tutoring is one way to provide the repetition and practice that is often necessary in teaching skills to the handicapped. It is also beneficial in that it allows students to focus on the mastery of one skill at a time (Jenkins and Jenkins, 1985). Krouse, Gerber, and Kauffman (1981) reported that there was no definitive age difference between tutor and tutee which led to an optimal situation but that the complexity of the task might be a factor which could be used to determine the appropriate age of a tutor. Jenkins and Jenkins (1985) suggest that academically capable fifth and sixth graders make ideal tutors because they are often willing to spend time at home to complete assignments that they might miss while they are tutoring. They further suggest that to be successful, tutors need to be dependable, responsible, sensitive and caring. The 1982 study by Voeltz

suggests that tutors be selected from among those who express an interest in being tutors.

Fenrick and Peterson (1984) used sixth grade students as peer tutors in a classroom serving moderately and severely mentally retarded students. These tutors were randomly chosen from a group who had volunteered for the program. These tutors worked in the program thirty minutes a day, three days a week, for a period of seven weeks. After the program was completed, these tutors were administered a posttest and they evaluated the handicapped more positively on thirteen of twenty-seven items than they had on the pretest. On all but one item (dress nicely) they rated the handicapped students as positively or more positively than did a control group of sixth graders who did not serve as tutors.

Third grade tutors who worked with severely/profoundly handicapped students showed more acceptance and awareness of handicapping conditions after a nine week period during which they worked daily with three different students for a period of twenty minutes each (Pegnatore, 1984). Donder and Nietupski (1981) taught seventh grade volunteer tutors to teach playground skills to moderately retarded peers. During informal discussions following the program, the tutors indicated that they had learned that the handicapped students were not as "different" as they had originally thought. They also expressed an awareness of the

differences between the handicapped students. The awareness of similarities between handicapped and nonhandicapped individuals was the focus of a study by Siperstein and Chatillon (1982). They found that children react more positively and are more willing to interact with retarded children whom they perceive as being similar to themselves.

Allowing young people the opportunity to identify similarities between themselves and handicapped students is one strategy to foster more positive attitudes toward the handicapped (Siperstein & Chatillon, 1982). Equal status of the handicapped person has been demonstrated to be one factor that can lead to positive changes in attitudes (Donaldson, 1980). Programs have been developed that help handicapped students achieve equal or near equal status to their nonhandicapped peers. Donder and Nietupski (1981) used peer tutors to teach specific playground skills such a jumping rope, shooting baskets, and playing kickball to moderately retarded teens. As the handicapped students began to attain skills in these areas, the peer tutors found fewer differences between themselves and the handicapped students. After the conclusion of the study, the interaction between the nonhandicapped tutors and the retarded students continued.

Swimming is one area where handicapped students are afforded the opportunity to achieve success in an enjoyable skill, to take pride in their accomplishments, and to

participate socially in a group setting (Christie, 1985). These are the same benefits that are afforded to nonhandicapped students who receive swim instruction. Christie also notes that handicapped and nonhandicapped swimmers receive the same respect and regard as they gain skills in swimming. Swimming activities that are developed around the strengths of handicapped individuals offer these students many opportunities to interact on even terms with nonhandicapped individuals (American Red Cross, 1977).

This review of literature covers several areas related to attitudes toward the handicapped. First it looked at how attitudes are formed and once formed, how they are reinforced. Then it looked at several ways to measure the attitudes of individuals toward the handicapped. Instruments that allow researchers to look at more than one aspect of attitudes were found to provide information about both cognitive understanding of handicapping conditions and behavioral intentions toward the handicapped. Many programs have been designed to help students develop more positive attitudes toward handicapped individuals. Presenting factual information, involving students in simulation activities, and allowing students to serve as peer tutors have all been effective in bringing about positive changes in attitude. One factor, that increased the effectiveness of these approaches to attitude change, is that of allowing students the opportunity to discover similarities between

themselves and handicapped individuals. Handicapped and nonhandicapped students can achieve success in swimming. Involving nonhandicapped sixth graders as peer tutors in a program of swim instruction that serves mildly to severely handicapped students may be one way to effect positive attitude change.

III

Methods and Procedures

This study was developed to assess the attitudes of students who volunteer to be Caring-Sharing helpers and to determine if participation in the Caring-Sharing program has an effect on those attitudes. It was also designed to compare the differences in attitudes between students who volunteer to participate in the Caring-Sharing program and those who do not. Because of the interaction that takes place between the students in the C.O. Sorenson programs and the students in the programs at the Woodinville Annex, it would not be possible to administer a test of attitudes that would not be influenced by the proximity of the two programs. Students in the two programs share recess and, in some cases, classes are combined for music and physical education. Due to this integration factor, students from another building who would be able to come to C.O. Sorenson over a period of time to serve as Caring-Sharing helpers were sought for the study.

A sixth grade class at Woodin Elementary School in the Northshore School District was chosen to participate in this study. The teacher of this class, Mr. Oliver, had previously taught sixth grade at the Woodinville Annex and so was familiar with the Caring-Sharing program. He had

indicated that he had students in his current class whom he thought would like to volunteer as helpers and parents who would be willing to provide transportation between the two schools. I made a visit to his class to explain the Caring-Sharing program and our expectations of students who volunteer for the program. Information sheets and permission slips were sent home with the students. The following week I returned to the classroom and administered the three sections of the questionnaire to the entire class. The nine students who indicated that they would like to participate in the program and who had parental permission to do so were selected to participate in the program. This group of students then visited C.O. Sorenson School. They spent part of a morning in an orientation and training session in the pool and the rest of the time was spent viewing the classes with whom they would be working.

It was determined that these nine Caring-Sharing helpers would spend one hour at the pool once a week for a period of seven weeks. During that hour each student would help two handicapped students in a swim lesson. The classes at C.O. Sorenson which received swim instruction during that hour were very different.

The students in the first class ranged in age from 8 years 10 months to 14 years 11 months (mean = 11 years 9 months). All of these students are females. The students in this class all have multiple handicaps. Five of them

have moderate to severe cerebral palsy. One student is also blind. None of these students have expressive language and all are severely mentally retarded. These students have a wide range of swimming skills. Two of the students swim a modified crawl stroke independently. Two other students are able to back float independently. Several of the students work on independent walking in the pool. None of these students display any fear of the water.

The second class was a kindergarten/first grade transition class. The goal of this class is to prepare students to move from C.O. Sorenson to other buildings where they will be placed in either self-contained special education classrooms or mainstreamed into regular classrooms. These students ranged in age from 6 years 9 months to 7 years 9 months (mean = 7 years 3 months). One of these students has cerebal palsy and while she does not speak she is able to use sign language to express her needs. Two of the students have Down's syndrome and are mildly to moderately retarded. These three boys and four girls displayed a wide range of swimming skills. Two of the boys were able to swim fifteen feet independently. Two of the other students were quite fearful and needed a great deal of reassurance. The rest of the students were very eager to learn to swim.

Caring-Sharing helpers were assigned to each student in these classes. The ninth helper was asked to assist

wherever he or she was needed or to substitue if one of the other helpers were absent. Each swim lesson consisted of a five minute warm-up, twenty minutes of one-to-one instruction, and five minutes of unstructured playtime. Two instructors were in the pool at all times and rotated between pairs of students, offering suggestions, giving praise, and introducing new skills as appropriate.

After the sixth graders had participated in the program for seven weeks, the questionnaire was readministered. Their scores on the pretest were compared to their scores on the posttest. The scores of the Caring-Sharing helpers on the pretest were also compared to the scores of the sixth graders who had not volunteered to work in the program.

Design and Identification of the Variables

This study has two components. One part is a pretest-posttest gain score study of nine students. In this section of the study, the independent variable was the participation in the Caring-Sharing program and the dependent variable was the scores of the students on the questionnaire. A dependent *t* test was used to compare these scores. The second part of the study compares the pretest scores of the volunteers with the scores of the students who did not volunteer for the program. An independent *t* test

was used to compare these sets of scores. Both components of the study have two parts. The first part is the perceptions that the respondent had of handicapping conditions. The second part is the feelings that the respondent had toward those who are handicapped.

Subjects and Controls

The subjects in this study were nine students in a sixth grade classroom at Woodin Elementary School. Eight of these students were female, one was male (student F). The mean age of the subjects was 11 years 9 months. Each of these students had volunteered to participate as a peer tutor in the Caring-Sharing swim program. The control group was the remainder of the students in this sixth grade class. This group included twelve males and six females. Three members of the control group (2 males and 1 female) did not complete Part III of the questionnaire and so were not represented in that section of the study. Prior to this study, the students in this classroom had completed the Birth Defects Education Curriculum: People You'd Like to Meet (Shurtleff, 1980); however this author was not aware of that fact before beginning the study.

Development of the Test Instruments

The first step in the implementation of this study was to develop the test instruments which would be used. One instrument (Part II) was a twenty-eight item semantic differential questionnaire (Fenrick & Peterson, 1984). Positive items were randomly placed on the left side of the scale and were scored from one to five with the maximum score being assigned to the positive item. A similar instrument was used by Fenrick and Peterson (1984) in studying the attitudes of sixth graders toward their own classmates and toward handicapped students. Some of the terms used were found in studies by Gottlieb and Switzky (1982) and Stainback and Stainback (1982). Combining information from these three sources, a preliminary test was developed which was administered to a classroom of fifth and sixth graders who attended classes at the Woodinville Annex. This preliminary test was given to determine the ease of administering the test and to check for flaws in the instrument. After giving the test, two descriptive pairs (crazy/not crazy and unaware/smart) were dropped from the test and two pairs (kind/cruel and pleasant/unpleasant) were added. The term 'lazy' which had been paired with 'active' was changed to 'inactive'. The original instrument included a numbered scale which required the respondents to circle the number which corresponded to their answer. The revised

instrument eliminated the numbers and instead included spaces for marking responses. Scoring this section of the test was accomplished by adding the values assigned to each adjective pair. The range of possible scores on this section of the test is 28 to 140.

Another test instrument which was developed was an adjective checklist (Part III). The purpose of the checklist was to determine the feelings that students have when they are around a handicapped person. Stainback and Stainback (1982) had used a list of eight positive and eight negative adjectives in part of their study of feelings. The original test designed for this study had twenty-six items which had no predetermined positive or negative connotation. This test was also administered to fifth and sixth graders at the Woodinville Annex. The students were asked to complete the questionnaire by circling the words that corresponded to their feelings. They were also asked to add other terms which they felt might describe their feelings. As a result of their responses, several changes were made in the questionnaire. The terms 'attraction', 'proud', and 'like' were dropped from the instrument and the terms 'strange', 'frightened', 'protective', 'faint', 'normal', 'interested', 'neutral', 'friendly', 'curious', 'weird', and 'superior' were added. These changes brought the total number of items in the questionnaire to thirty-four. Then copies of the checklist with an alternate set of

instructions were prepared. These new directions asked the respondents to indicate if they felt the terms expressed positive or negative feelings toward other people. This alternate form of the instrument was administered to seventy-two students in grades six through eight. Their responses to the questionnaire were analyzed. Based on the percentage of students who scored an item as positive, a scoring system was developed for this section of the questionnaire (Table 8).

86 - 100%	+3
71 - 85%	+2
66 - 70%	+1
46 - 65%	0
31 - 45%	-1
16 - 30%	-2
0 - 15%	-3

The final score on this section of the test was determined by finding the total value of the items circled by adding the positive and negative values, dividing that score by the number of responses and multiplying that answer by 100.

A final section of the test was developed to determine if the students had had any previous experiences with handicapped persons and to define that experience as to the type of handicapping condition that the person they knew had and the approximate age of that handicapped person.

Treatment of the Data

At the conclusion of the study, there were three sets of data; the pretest of the experimental group, the posttest of this group, and the tests of the control group. These data was compared in several ways. First the pretest and posttest questionnaires of the subjects were matched and dependent *t* tests were done on the gain scores to determine the effect that the Caring-Sharing program had had on their perceptions of the handicapped and their feelings toward handicapped people. Secondly, the pretest scores on Part II and Part III of the students who had volunteered for the Caring-Sharing program were compared to the scores of the control group on these parts of the test using an independent *t* test.

Then using the scores on Part II of the questionnaire (Attributes of the Handicapped), pretest-control and posttest-control comparisons were made on individual test items using independent *t* tests. Finally a table was constructed that showed the percentages of the respondents in each phase of the study who selected each feeling on Part III of the questionnaire.

IV

Results and Conclusions

Findings of the Study

The findings on Part I of the questionnaire were inconclusive (See Table 5). The purpose of this section of the questionnaire was to establish if the students had had previous experiences with a handicapped person, the approximate age of that handicapped person, and their handicapping condition. The students were not consistent in their responses. Some who indicated on the pretest that they knew a person who used a wheelchair did not make the same response on the posttest. Similarly, on the pretest a student admitted to knowing a person who was deaf but did not indicated that they knew anyone who was deaf when they took the posttest. However, in spite of these inconsistencies, the test did show gains in several areas. On the pretest four of the students who volunteered for the Caring-Sharing program indicated that they knew how to help a handicapped person. On the posttest eight of the volunteers stated that they could help such a person. When asked on the pretest if they knew how to talk to a handicapped person four students felt that they could. The posttest results showed that seven students now felt that

they could do this. One student who responded postively on the pretest to this question responded negatively on the posttest. Additional information would be needed to interpret this change.

On Part II, Attributes of the Handicapped, the mean of the experimental group on the pretest was 111.11, standard deviation, 9.16 (Table 1). The posttest mean was 112.89, standard deviation, 12.17. A pretest-posttest gain score analysis of these data did not show a significant difference (t=.60, df=8, p >.01). A similar analysis of the data on Part III, Feelings toward the Handicapped, also showed no significant difference (t=.49, df=8, p >.01). The mean on the pretest was 236.11. standard deviation, 59.24. The posttest mean was 247.56, standard deviation, 26.99 (Table 2).

Table 3 shows the comparison of the pretest scores of the experimental group and the scores of the control group on Part II. An independent t test of this data showed no significant difference in the attributes that the students ascribed to others with handicaps (t=1.24, df=25, p >.05). The mean score of the experimental group was 111.11, standard deviation, 9.16. The same analysis of the data for the control group showed a mean of 102.17, standard deviation, 19.75.

When comparing the pretest scores of the subjects to the test score of the controls on Part III, Feelings toward the

Handicapped, the mean score of the subjects was 236.11, standard deviation, 59.24; the mean of the control group was 151.93, standard deviation, 82.74 (Table 4). An independent *t* test revealed a significant difference (t=2.56, df=22, $p < .05$).

Using the score on Part II of the questionnaire, pretest-control and posttest-control comparisons were made for individual test items using independent *t* tests. Significant differences ($p < .05$) were found on several of the items (Table 6). Table 7 shows the percent of respondents who selected each feeling on Part III of the questionnaire.

Discussion

While the pretest and posttest scores of the experimental group were not analyzed statistically, they did show that the tutors had gained exposure to students with specific handicapping conditions. Prior to their participation in the Caring-Sharing program none of the students had known anyone with multiple handicaps; at the conclusion of the study six of the nine students were aware of having had such an experience. The students also expressed a greater awareness of others who were mentally retarded, blind, and/or physically handicapped.

All of the students, both the experimental and the

control groups, had completed the Birth Defects Education Curriculum: People You'd Like to Meet prior to their participation in this study. This curriculum was developed jointly by the Bellevue School District and the Puget Sound Chapter of the March of Dimes. One of the goals of this curriculum is to help young people develop accepting attitudes toward the handicapped. To help achieve this goal students are introduced via films and slide shows to a group of handicapped children. Some of the handicaps that are represented are visual impairment, Down's Syndrome, phocomelia (without arms and/or legs), hearing impairment, cerebral palsy, Spina Bifida (open spine), deafness, cleft palate and/or harelip, and mild mental retardation. In reviewing some of the visual aids that accompany this curriculum, this author felt that the students introduced represented only a small portion of the handicapped population. None of the students shown had severe handicaps. Most of them would probably be receiving their education in self-contained classrooms in a regular school building or mainstreamed into a regular education classroom. This curriculum might help to develop positive attitudes toward others with specific handicapping conditions but may not give the learner information about other handicaps, especially those that more severely affect the capabilities and/or appearance of the handicapped person.

Part II of the questionnaire examines the perceptions

that the respondents have about individuals who are handicapped. This test has a possible range of scores from 28 to 140. The majority of the scores of both the experimental and control groups were positive. Only one student had a score that was below the the midpoint of the possible range (Table 3). Table 6 shows the mean score of individual items on this section of the questionnaire. A mean score above 3.0 is positive (possible range 1 to 5). Examining the data shows that only one item received a negative mean score. This table also shows that on four of the twenty-eight items, the pretest scores of the subjects were significantly higher ($p < .05$) than the scores of the control group. On the pretest, the volunteer tutors rated handicapped individuals as more interesting, cuter, more helpful, and more careful than did the students who did not volunteer. A comparison of the posttest scores of the subjects to the scores of the controls showed a significant difference on eight of the twenty-eight items. The posttest scores showed that the tutors perceived handicapped individuals as more active, more healthy, more interesting, cleaner, cuter, more careful, more kind, and more pleasant than did the control group.

Gottlieb and Gottlieb (1977) reported that their subjects rated mentally retarded children as smart and/or bright. While this study asked about the attributes of handicapped individuals, it demonstrated a similar finding.

The term 'smart' was paired in two ways (smart/stupid and smart/dumb). The mean score of the control group on both of these pairs was 3.9 out of a possible range from 1 to 5. The pretest mean scores of the experimental group were 4.0 (smart/stupid) and 4.4 (smart/dumb). Their posttest scores were 3.9 and 4.0 respectively.

Table 2 shows the pretest and posttest scores of the subjects on Part III of the questionnaire. On this section of the questionnaire, the lowest pretest score belonged to Student F, the only boy who volunteered to help in the Caring-Sharing program. At the completion of the study, he had the highest posttest score. This student was very hesitant at the beginning of the tutoring sessions but by the end of the seven weeks of the program he appeared much more comfortable and more eager to work with his students. His scores on Part III of the test seem to illustrate his changing attitudes toward the handicapped.

The pretest scores of the subjects and the scores of the control group on Part III of the test are compared in Table 4. This comparison showed a significant difference between the feelings toward the handicapped of the two groups. Table 7 looks at the percentage of respondents who selected each feeling presented in this section of the test. None of the students reported that they felt frightened, dislike, disgust, helpless, faint, angry, or afraid when they were around a handicapped person. A considerably

higher percentage of the students in the experimental group stated that they felt happy, relaxed, helpful, caring, comfortable, confident, and friendly when with a handicapped person. In comparison to the control group, fewer of the subjects felt strange, nervous, uncomfortable, questioning, or weird. Comparing the pretest and posttest score of the experimental group showed that more of them felt happy, relaxed, helpful, calm, respectful, comfortable, neutral, curious, and superior after participation in the program. Sixteen of the items on Part III of the questionnaire were of a positive nature (Table 8). The percentage of respondents selecting each positive item declined in only four cases. The four terms that had fewer positive responses on the posttest were caring, normal, concerned, and confident. There was an increased percentage of respondents selecting a negative term in only one instance. More of the volunteers stated that they felt 'questioning' when they were around handicapped individuals at the completion of the study. Because the students had viewed a curriculum that showed only the mildly handicapped, interaction with severely handicapped students might have been one factor in these shifts in attitude.

Limitations

Several factors must be considered as the data from this study is interpreted. The findings relate only to students in a specific situation. This study employed sixth grade students from a suburban setting. All of the students in the class had completed a series of lessons which were designed to improve their attitudes toward the handicapped prior to their participation in the Caring-Sharing program. Each subject was asked to tutor two different handicapped individuals, one who was moderately to severely handicapped and one who was mildly handicapped. The students who participated in this study were brought to C.O. Sorenson once a week and so had limited time in which to interact with the handicapped students.

Students who had not completed the Birth Defects Education Curriculum might have scored differently on the test items. Similarily, students from an integrated school who were involved in a tutoring program might respond differently. The age of the student tutors and the locale in which they live might also be determining factors. Another factor might be the specific handicaps of the students who were being tutored in the program.

Implications and Conclusions

Research has shown that attitudes toward other people are learned and that they can be changed (Henderson & Bryan, 1984). Several methods have been shown to be effective in changing attitudes toward the handicapped. Some of these successful methods are the dispensing of factual information, participation in simulation activities, and direct contact with handicapped individuals.

Tests have been developed to ascertain the attitudes that individuals have toward handicapped persons. These same tests can also be used to determine if a particular form of intervention has brought about attitude changes. The more common types of instruments that have been used for these purposes are adjective checklists, semantic differential scales, and sociometric scales. Stainback and Stainback (1982a) combined several of these test forms and were able to determine both cognitive and behavioral attitudes toward the handicapped. Wisely and Morgan (1981) also used several test instruments and found a discreptancy between the attitudes expressed by individuals and their behavioral intentions.

Peer tutoring is one form of direct contact that has been shown to effect attitudes toward the handicapped in a positive way. Sixth graders make ideal tutors (Jenkins & Jenkins, 1985). Fenrick and Peterson (1984) found that

after a seven week tutoring program the attitudes of sixth grade tutors toward the handicapped had become more positive. Middle school students were able to successfully teach playground skills to mentally retarded peer in a 1981 study by Donder and Nietupski. Swimming is a skill which can be learned by both handicapped and nonhandicapped individuals. Because of this, participation in a tutoring program in aquatics provides an ideal opportunity for nonhandicapped individuals to recognize similarities between themselves and those with handicaps. Siperstein and Chatillon (1982) found that as students were able to perceive similarities between themselves and handicapped individuals they developed more accepting attitudes.

Although unplanned, the sixth graders in this study participated in three types of activities which have been found to have a positive influence on attitudes toward the handicapped. First they were exposed to factual information and simulation activities. Then they had actual experiences with handicapped young people. It was not possible to determine the effect that the Birth Defects Education Curriculum had had on the attitudes of the students because it had been completed before the pretest had been administered. However, this author suspects that the high scores of both the experimental and control groups on the portion of the questionnaire that looked at the perceptions that a person has about those with handicapping conditions

might be based in part on what was taught in that curriculum.

Although the perceptions of both groups were similar, the feelings that the students had toward those with handicaps were significantly different. These feeling toward the handicapped seem to be a determining factor when students are asked to volunteer in programs such as the Caring-Sharing program. Other studies that have used nonhandicapped students as peer tutors with handicapped peers have also relied on volunteer tutors (Donder & Nietupski, 1981, Fenrick & Peterson, 1984, Pegnatore, 1984). If the students who volunteer for programs such as this already have positive attitudes toward the handicapped perhaps it is important that we look at the students who do not volunteer to participate in tutoring programs.

In this study, the feelings that Student F had toward the handicapped changed dramatically. His reasons for volunteering are not known. Perhaps there was parental or teacher pressure. Or perhaps he wanted a first hand experience with handicapped individuals in spite of his negative feelings toward the handicapped. Regardless of the reason he had for volunteering, his feelings about those with handicaps changed during the seven weeks that he was involved in the Caring-Sharing program.

Since one goal of planned interaction with the handicapped is to develop more positive attitudes toward the

handicapped, it may be necessary to develop strategies that will allow more students to gain first hand experiences with handicapped individuals. Questions that need to be addressed are: 1. What types of planned interaction help develop positive attitudes toward the handicapped?, 2. What interactions are most effective in developing these positive attitudes?, and 3. How do we involve those students whose attitudes are less positive in activities that will give them an opportunity to develop more positive attitudes?

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TABLE 1

Pretest-Posttest Gain Score Analysis
on Part II, Perceptions of the Handicapped

	Pretest	Posttest	d	d^2
A	112	98	-14	196
B	100	96	-4	16
C	131	130	-1	1
D	121	127	+6	36
E	106	106	0	0
F	106	125	+19	361
G	110	115	+5	25
H	102	102	0	0
I	112	117	+5	25
N=9	$\bar{X}$=111.11 SD= 9.16	$\bar{X}$=112.89 SD= 12.17	Σd=16	Σd^2=660

$\bar{d}$= 1.78

s_d^2 =78.94

$s_{\bar{d}}$ = 2.96

t = .60

df = 8

α = .01

t_{cv} =3.35

TABLE 2

Pretest-Posttest Gain Score Analysis
on Part III, Feelings Toward the Handicapped

	Pretest	Posttest	d	d^2
A	215	210	-5	25
B	227	209	-18	324
C	282	264	-18	324
D	269	217	-52	2704
E	270	254	-16	256
F	82	290	+208	43264
G	258	256	-2	4
H	236	264	+28	784
I	286	264	-22	484
N=9	$\bar{X}$=236.11 SD= 59.24	$\bar{X}$=247.56 SD= 26.99	Σd=103	Σd^2=48169

$\bar{d}$= 11.44

s^2_d=5873.78

$s_{\bar{d}}$ = 25.55

t = .488

df = 8

α = .01

t_{cv}=3.35

TABLE 3

Comparing Perceptions About the Handicapped
Between the Experimental and Control Groups

Experimental	Control
112	78
100	102
131	83
121	130
106	83
106	102
110	104
102	95
112	137
	112
	117
	109
	130
	97
	112
	55
	89
	104
N=9	N=18
$\bar{X}$= 111.11	$\bar{Y}$= 102.17
SD= 9.16	SD= 19.75

$t = 1.24$

$df = 25$

$\alpha = .05$

$t_{cv} = 1.71$

TABLE 4

Comparing Feelings Toward the Handicapped
Between the Experimental and Control Groups

Experimental	Control
215	210
227	300
282	156
269	233
270	119
82	150
258	260
236	183
286	120
	143
	0
	67
	17
	221
	100
N=9	N=15
$\overline{X}$= 236.11	$\overline{Y}$= 151.93
SD= 59.24	SD= 82.74

$t = 2.56$

$df = 22$

$\alpha = .05$

$t_{cv} = 1.72$

TABLE 5

Pretest and Posttest Scores on PART I

	Students								
	A	B	C	D	E	F	G	H	I
I don't know anyone							X		
Someone at school		X	X X	X X	X X	X			X X
A friend	X X	X X	X X	X X	X X		X	X X	X
A relative				X	X X				X
A blind person		X X	X	X	X X	X X		X	X
A deaf person	X	X	X	X					
Mentally retarded	X	X X	X	X X	X X	X		X X	
Physically handicapped	X X	X	X	X X	X			X X	X
Multiple handicaps	X	X	X	X	X				X
Wheelchair	X X	X X	X	X	X	X		X X	X
I can help	X	X X	X X	X	X	X		X X	X X
Sign language	X							X X	
I can talk	X X	X	X	X	X	X		X X	X X
An adult				X	X X	X X			
A teenager	X	X X	X		X		X	X	X
My own age	X X	X X	X X	X	X	X X	X	X X	X
Younger than I am	X X	X	X	X X	X X		X	X	X

TABLE 6

MEAN ATTRIBUTES OF THE HANDICAPPED
ON PART II

	Pretest	Posttest	Control
Friendly/Unfriendly	4.3	4.5	4.5
Active/Inactive	3.7	4.2b	3.3
Unselfish/Selfish	4.3	3.8	3.8
Smart/Stupid	4.0	3.9	3.9
Able/Helpless	3.7	4.0	3.8
Healthy/Sick	3.8	4.2b	3.4
Quiet/Noisy	3.4	3.1	3.7
Neat/Sloppy	3.9	3.6	3.2
Interesting/Boring	4.0	4.4	3.9
Fun/Bothersome	4.6a	4.8b	3.7
Happy/Unhappy	3.9	4.7	4.2
Pretty/Ugly	3.7	4.0	3.3
Friendly/Grouchy	4.3	4.1	3.8
Cheerful/Sad	4.4	4.0	3.8
Strong/Weak	3.2	3.3	3.1
Easy to talk to/ Hard to talk to	3.8	3.4	3.3
Nice/Mean	4.4	4.3	4.2
Clean/Dirty	3.8	4.3b	3.4
Cute/Unattractive	3.8a	4.0b	2.8
Not lonely/Lonely	3.1	3.3	3.6
Not greedy/Greedy	4.0	3.9	3.8
Smart/Dumb	4.4	4.0	3.9
Helpful/Not helpful	4.6a	4.3	3.6
Careful/Careless	4.4a	4.6b	3.6
Not frightening/ Frightening	3.8	3.8	4.1
Kind/Cruel	4.8	4.9b	4.1
Pleasant/Unpleasant	4.4	4.8b	3.9
Fast/Slow	2.7	2.7	2.7

Maximum possible score = 5
a = $p<.05$ (one tailed) for pre-control comparison
b = $p<.05$ (one tailed) for post-control comparison

TABLE 7

PERCENT OF RESPONDENTS SELECTING EACH FEELING
ON PART III

	PRETEST	POSTTEST	CONTROL
HAPPY	55.6	100.0	33.3
RELAXED	88.9	100.0	26.7
STRANGE	11.1	0	33.3
NERVOUS	11.1	0	40.0
FRIGHTENED	0	0	0
HELPFUL	66.7	88.9	46.7
CARING	100.0	77.8	80.0
DISLIKE	0	0	0
CALM	66.7	88.9	53.3
RESPECTFUL	66.7	77.8	66.7
DISGUST	0	0	0
COMFORTABLE	88.9	100.0	26.7
HELPLESS	0	0	0
PROTECTIVE	44.4	44.4	20.0
FAINT	0	0	0
NORMAL	88.9	66.7	73.3
SAD	11.1	11.1	6.7
INTERESTED	55.6	55.6	60.0
SHY	22.2	0	26.7
SORRY	22.2	11.1	20.0
ANGRY	0	0	0
UNCOMFORTABLE	0	0	13.3
CONCERNED	55.6	33.3	60.0
AFRAID	0	0	0
CONFUSED	11.1	11.1	13.3
CONFIDENT	66.7	55.6	40.0
QUESTIONING	11.1	22.2	40.0
NEUTRAL	0	22.2	46.7
SELF CONSCIOUS	0	0	6.7
EMBARRASSED	0	0	6.7
FRIENDLY	100.0	100.0	73.3
CURIOUS	33.3	44.4	53.3
WEIRD	0	0	20.0
SUPERIOR	22.2	44.4	20.0

TABLE 8

Scoring for Part III of Test

Afraid	-3	Helpless	-3
Angry	-3	Interested	+3
Calm	+3	Nervous	-3
Caring	+3	Neutral	+1
Comfortable	+3	Normal	+3
Concerned	+2	Protective	+1
Confident	+3	Questioning	-1
Confused	-2	Relaxed	+3
Curious	+1	Respectful	+3
Disgust	-3	Sad	-2
Dislike	-3	Self-conscious	0
Embarrassed	-3	Shy	-2
Faint	-3	Sorry	-2
Friendly	+3	Strange	-3
Frightened	-3	Superior	+1
Happy	+3	Uncomfortable	-3
Helpful	+3	Weird	-2

4912 184th Place Southwest
Lynnwood, Washington 98037
March 3, 1986

Mr. Fred Row
Director of Special Education
Northshore School District

Dear Sir:

I am employed as a special services aide at C.O. Sorenson School and am also a student at Seattle Pacific University. I have written a thesis proposal which is directly tied to my position at Sorenson School. I have included a copy of my proposal for your information.

My reason for writing is to obtain permission to carry out this research. In brief my thesis would require administering a battery of tests to the sixth graders who are now serving as Caring-Sharing helpers in our swim program. Further, I am seeking permission to pretest a group of sixth grade students from another elementary school and then bringing one half of that group to Sorenson to work as Caring-Sharing helpers for one hour per week for a period of six weeks. Mr. Ken Oliver who teaches sixth grade at Woodin Elementary has expressed an interest in having some of his students involved in our program. At the end of the six week period, I propose to readminister the tests to the entire group of students. I also intend to bring the students who were not directly in the tutoring to C.O. Sorenson after the post-test so that they can also get to know our students.

I believe strongly in the worth of the Caring-Sharing program and believe that it benefits both our students and the students who serve as helpers. I hope that this proposal will provide statistical evidence of its worth in shaping the attitudes toward the handicapped of our helpers.

I am looking foward to receiving permission to carry out this project. If you have any questions about my proposal I am at C.O. Sorenson from 8:00 to 3:00 daily. Dr. Annette Clem at Seattle Pacific is my adviser for this project and would also be able to answer questions that you might have. Thank you for your attention and time.

Sincerely,

Judith A. Gay

4912 184th Place S.W.
Lynnwood, Washington 98037
March 24, 1986

Mr. Kenneth Eickhoff
Principal, Woodin Elementary
Northshore School District

Dear Mr. Eickhoff,

I am employed as a swim instructor at C.O. Sorenson School and am also working toward my Master's Degree in Education at Seattle Pacific University. As part of my thesis program I have proposed to evaluate the attitudes toward the handicapped of students who work in our Caring-Sharing program. Earlier in the school year Mr. Ken Oliver approached us to see if we would consider using some of his students in our Caring-Sharing program. Because of his interest, I wrote a proposal and presented it to the administration of the Northshore School District. My proposal involves using eight of Mr. Oliver's students in our swim program for one hour, one day a week for a period of six weeks plus a training session. Mr. Oliver has assured me that he has parents who will provide the necessary transportation.

I was notified last week that the district had approved my proposal and that I could proceed with my plans. My purpose in writing to you is to let you know about my proposal and to answer any questions that you might have. I have enclosed a copy of the information sheet that I will be sending out to parents and a copy of my proposed schedule. I am at C.O. Sorenson daily if you have any unanswered questions.

Sincerely,

Judith A. Gay

Dear Parents,

The Caring-Sharing program at C.O. Sorenson School allows students in regular education classes to serve as peer tutors in a swim lesson program for handicapped students. Caring-Sharing helpers are taught how to help handicapped students improve their swim skills. It has been our experience that sixth grade students work well in our program.

We would like to involve more students in our program this year. Mr. Oliver has expressed an interest in having some of his students come to C.O. Sorenson to work as tutors in the swim program. The students will spend one hour per week helping in the swimming pool under the direction of an American Red Cross certified Water Safety Instructor and another adult.

Swimming skill is not a major factor in determining who will be a good Caring-Sharing helper. Students who are comfortable in the water, who can put their faces in the water, and who can follow directions usually make excellent helpers. Our pool is a shallow water facility (maximum depth - 4 1/2 feet). Students are shown how to work safely with our students before they actually participate in the program.

As one of the swim instructors at C.O. Sorenson and a graduate student working toward my master's degree in education at Seattle Pacific University, I am studying our Caring-Sharing program to see how it effects the attitudes of our helpers toward the handicapped. To gather information, I would ask that your student complete a short attitude questionnaire both before and after they work in our program. The questionnaire is constructed in such a way that it protects the anonymity of the student. I have presented my materials to the adminstration of the Northshore School District and have received permission to proceed with my project.

I will be administering the attitude questionnaire to all of the students who return their permission slips by April 3, 1986. Then eight students from that group of tested student will be randomly selected to participate in the program. Responses on the questionnaire will not affect the selection process. After the training session and participation as Caring-Sharing helpers for a period of six weeks, I will again administer the questionnaire to all of the students. At the conclusion of the program, I would like to involve all of the students in an activity at C.O. Sorenson.

If you would like your student to be considered for participation in the program, please read and sign the attached permission slip and return it to Mr. Oliver by April 3rd. There is also a section for your student to sign. I am at C.O. Sorenson daily if you have questions. The number at the school is 485-0376.

Sincerely,

Judith A. Gay

PLEASE COMPLETE AND RETURN TO YOUR CLASSROOM TEACHER BY THURSDAY, APRIL 3rd, IF INTERESTED.

I give permission for my son/daughter to work as a Caring-Sharing swim helper at C.O. Sorenson School during the spring of 1986. I understand that each student will be asked to complete an attitude questionnaire twice during this period. I also understand that there will be a certified Water Safety Instructor in the pool area at all times.

I hereby release Northshore School District and the staff at C.O. Sorenson and Woodin Elementary School from any and all liability that may arise from participation of my child in this program.

_____
Parent Signature

_____
Date

I would like to be a Caring-Sharing swim helper at C.O. Sorenson School. If selected, I will bring my suit and towel each week on swim days and will follow the directions of the adults in the pool. I will complete the attitude questionnaire when asked and will help my student have a positive experience in the pool.

_____
Student Signature

_____
Date

SCHEDULE FOR CARING-SHARING

March 31 Visit Woodin Elementary, send information sheets and permission slips home

April 3 Administer attitude questionnaire to control and experimental groups

2:45 -3:15

April 7 Send schedule and district permission slips home

April 10 In pool training of helpers 10:45-11:45

April 24
May 1
May 8 Caring-Sharing
May 15 10:00-11:00
May 22
May 29
June 5

June 9 Administer posttest to experimental group
2:30-3:15

To: Caring-Sharing Swim Helpers

From: Swim Instructors at C.O. Sorenson

Now that you have been selected to participate in the Caring-Sharing program as a swim helper, there are a few things about working with the students at C.O. Sorenson that we would like to share with you.

First, when you were in training we showed you the types of things that you might be doing with your students. However, our program is very individualized. The students that you are working with may only put part of their faces in the water when we blow bubbles...That's O.K. You can work on encouraging them to do a little bit more each time. This will be true for all of the other skills you will be helping to teach.

Secondly, many of our students have little or no speech. You can set a good example by talking to your students as you work with them. It is important to tell your students what you are going to be doing. It can be scary to be put in a back float position, for example, if that is not what you were expecting to have happen. Also it is important not to talk about your students. Even though they can't always talk, many of them can understand what you are saying about them. Remember to keep your comments on the positive side.

Thirdly, many of the Sorenson students learn slowly. Be excited about small steps of learning. A little praise will go a long way. Be an excited teacher. You are the one who is making it possible for your students to learn to swim.

Our swim program is exciting but it cannot happen without a group of dedicated young people who volunteer to be swim helpers. We really appreciate your interest in and commitment to our program. YOU make this program work. Because you are so essential to the program we rely on your being at the pool each time or sending a qualified substitute.

This should be a super year as together we teach the students at Sorenson how to swim. We are glad that you have decided to be a Caring-Sharing helper. Thank you.

ATTITUDE

QUESTIONNAIRE

CODE NAME-

AGE -

M F

C & S

PART I: There are no right or wrong answers to this questionnaire. Please answer each question as it relates to you. Some people will only answer one or two items; others will answer more items. Put a check in front of your answers.

I don't know anyone who has a handicap.

I know someone at school who has a handicap.

I have a friend who has a handicap.

I have a relative who has a handicap.

A handicapped person I know is blind.

A handicapped person I know is deaf.

A handicapped person I know is mentally retarded.

A handicapped person I know is physically handicapped.

A handicapped person I know has multiple handicaps.

A handicapped person I know is in a wheelchair.

I know how to help a handicapped person.

I know how to use sign language.

I know how to talk to a handicapped person.

The handicapped person I know is an adult.

The handicapped person I know is a teenager.

The handicapped person I know is about my age.

The handicapped person I know is younger than I am.

PART II: Some children are very happy, others are very sad, and still others are somewhere in between. Read this list and decide which term best describes a handicapped child. Put an X in the space that tells how like that term a handicapped child is.

friendly	- : - : - : - : -	unfriendly
inactive	- : - : - : - : -	active
unselfish	- : - : - : - : -	selfish
stupid	- : - : - : - : -	smart
helpless	- : - : - : - : -	able
sick	- : - : - : - : -	healthy
noisy	- : - : - : - : -	quiet
neat	- : - : - : - : -	sloppy
interesting	- : - : - : - : -	boring
fun	- : - : - : - : -	bothersome
happy	- : - : - : - : -	unhappy
ugly	- : - : - : - : -	pretty
grouchy	- : - : - : - : -	friendly
sad	- : - : - : - : -	cheerful
weak	- : - : - : - : -	strong
easy to talk to	- : - : - : - : -	hard to talk to
nice	- : - : - : - : -	mean
dirty	- : - : - : - : -	clean
unattractive	- : - : - : - : -	cute
lonely	- : - : - : - : -	not lonely
not greedy	- : - : - : - : -	greedy

smart	- : - : - : - : -	dumb
helpful	- : - : - : - : -	not helpful
careful	- : - : - : - : -	careless
frightening	- : - : - : - : -	not frightening
kind	- : - : - : - : -	cruel
unpleasant	- : - : - : - : -	pleasant
slow	- : - : - : - : -	fast

PART III: People have many different feelings when they are around a handicapped person. Look at this list of words and decide if any of them describe how you feel when you are with a handicapped person. Circle as many words as you need to to describe your feelings.

happy	interested
relaxed	shy
strange	sorry
nervous	angry
frightened	uncomfortable
helpful	concerned
caring	afraid
dislike	confused
calm	confident
respectful	questioning
disgust	neutral
comfortable	self-conscious
helpless	embarrassed
protective	friendly
faint	curious
normal	weird
sad	superior